

WHAT IS CLAIMED IS:

1. A first housing for installation in the ground and for mating with a second housing  
5 for installation in the ground, said second housing defining a second housing opening and  
having a second housing edge surface surrounding the second housing opening, said second  
housing further having at least two second housing ridges extending axially from the second  
housing edge surface, the first housing comprising:

at least one wall forming an interior cavity and forming a first opening into the  
10 interior cavity;

the at least one wall having an outer surface, an inner surface and a first housing edge  
surface connecting the inner and outer surfaces, said first housing edge surface  
surrounding the first opening;

an inner first housing ridge extending axially from the first housing edge surface and  
15 surrounding a first portion of the first opening; and

an outer first housing ridge extending axially from the first housing edge surface and  
surrounding a second portion of the first opening;

wherein the inner first housing ridge is disposed in a closer proximity to the first  
opening than the outer first housing ridge; and

20 wherein the inner and outer first housing ridges are adapted to mate with the at least  
two second housing ridges thereby inhibiting relative slidable movement  
between the first housing and the second housing.

2. The first housing of claim 1 wherein the second housing has generally the same  
25 construction as the first housing.

3. The first housing of claim 1 wherein first opening has a perimeter and wherein  
each of the inner and outer first housing ridges surrounds approximately one half of the  
perimeter.

4. The first housing of claim 1 wherein the at least two second housing ridges comprise an inner second housing ridge and an outer second housing ridge, and wherein the inner second housing ridge is disposed in a closer proximity to the second housing opening than the outer second housing ridge.

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5. The first housing of claim 1 wherein the inner and outer first housing ridges form a first pattern on the first housing edge surface, wherein the at least two second housing ridges form a second pattern on the second housing edge surface, and wherein the first and second patterns are the same.

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6. The first housing of claim 1, wherein the first opening has a generally rectangular shape.

7. The first housing of claim 1 wherein the second housing further has at least an additional two second housing ridges extending axially from the second housing edge surface, the first housing further comprising:

a second inner first housing ridge extending axially from the first housing edge surface and surrounding a third portion of the first opening; and  
a second outer first housing ridge extending axially from the first housing edge surface and surrounding a fourth portion of the first opening;  
wherein the second inner first housing ridge is disposed in a closer proximity to the first opening than the second outer first housing ridge; and  
wherein the second inner and outer first housing ridges are adapted to mate with the at least additional two second housing ridges.

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8. The first housing of claim 7 wherein the first opening has a perimeter and wherein each of the first and second inner first housing ridges and first and second outer first housing ridges surrounds approximately one fourth of the perimeter.

9. A first housing for installation in the ground and for mating with a second housing for installation in the ground, said second housing defining a second housing opening and having a second housing edge surface surrounding the second housing opening, the second housing further having at least two second housing ridges extending axially from the second housing edge surface, the first housing comprising:

at least one wall forming an interior cavity and forming a first opening into the interior cavity;

the at least one wall having an outer surface, an inner surface and a first housing edge surface connecting the inner and outer surfaces, said first housing edge surface surrounding the first opening; and

means for engaging the first housing edge surface with the at least two second housing ridges, thereby inhibiting relative slidable movement between the first housing and the second housing.

10. A housing for installation in the ground comprising:

at least one wall forming an interior cavity;

a knockout formed in the at least one wall and having an inner face and an outer face; and

an extension extending from the at least one wall onto one of the inner face and the outer face of the knockout;

wherein the extension is adapted to connect the knockout to the at least one wall and to be broken thereby permitting removal of the knockout from the at least one wall and providing an opening into the interior cavity.

11. The housing of claim 10, wherein the at least one wall has a wall portion constructed of a material having a first thickness, wherein the knockout is constructed of a material having a second thickness that is less than the first thickness, and wherein the extension extends from the wall portion onto one of the inner face and the outer face of the knockout and is constructed of a material having a third thickness that is greater than the second thickness.

12. The housing of claim 11 wherein the third thickness is substantially the same as the first thickness.

5           13. The housing of claim 10, wherein the knockout has a proximate end and a distal end, wherein the extension extends from the at least one wall onto the proximate end of the knockout, and wherein the knockout is further connected to the at least one wall at the distal end of the knockout.

10           14. The housing of claim 10 wherein the knockout has a proximate end and a distal end, wherein the extension extends from the at least one wall onto the proximate end of the knockout, and wherein the knockout is further connected to the at least one wall at a plurality of locations at the distal end of the knockout.

15           15. The housing of claim 10 wherein the knockout has a proximate end and a distal end, wherein the extension extends from the at least one wall onto the proximate end of the knockout thereby providing a first knockout connection location, wherein the knockout is further connected to the at least one wall at a plurality of additional connection locations at the distal end of the knockout, and wherein the only connection locations between the  
20 knockout and the at least one wall are the knockout connection location and the plurality of additional connection locations.

          16. The housing of claim 10, further comprising:  
a plurality of additional knockouts formed in the at least one wall, each of said  
25           plurality of additional knockouts having an inner face and an outer face; and  
a plurality of additional extensions, each of said plurality of additional extensions  
          extending from the at least one wall onto one of the inner face and the outer  
          face of one of the plurality of additional knockouts;  
          wherein each of the plurality of additional extensions is adapted to connect one of the  
30           plurality of additional knockouts to the at least one wall and to be broken

thereby permitting removal of one of the plurality of additional knockouts from the at least one wall and providing an additional opening into the interior cavity.

5           17. The housing of claim 10 wherein the knockout has three generally rectilinear sides and a generally curve-shaped side, and wherein the extension extends from the at least one wall across the generally curve-shaped side of the knockout.

10           18. A housing for installation in the ground comprising:  
at least one wall forming an interior cavity and forming a first opening into the interior cavity, the at least one wall having a wall portion constructed of a material having a first thickness;  
a plurality of knockouts formed in the at least one wall, each of said plurality of knockouts having an inner face and an outer face, and constructed of a  
15           material having a second thickness that is less than the first thickness, each of said plurality of knockouts further having a proximate end and a distal end, and wherein each of the plurality of knockouts is frangibly connected to the at least one wall at the distal end of the knockout; and  
a plurality of extensions, each of said plurality of extensions extending from the wall  
20           portion onto one of the inner face and the outer face of the proximate end of one of the plurality of knockouts, each of said plurality of extensions being constructed of a material having a thickness that is substantially the same as the first thickness;  
wherein each of the plurality of extensions is adapted to connect one of the plurality  
25           of knockouts to the at least one wall and to be broken thereby permitting removal of one of the plurality of knockouts from the at least one wall and providing one of a plurality of additional openings into the interior cavity.

19. A housing for installation in the ground comprising:

at least one wall forming an interior cavity and forming a first opening into the interior cavity, the at least one wall having a wall portion constructed of a material having a first thickness;

5 a plurality of knockouts formed in the at least one wall, each of said plurality of knockouts being constructed of a material having a second thickness that is less than the first thickness; and

means for removably connecting each of the plurality of knockouts to the at least one wall.

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20. A housing for installation in the ground comprising:

at least one wall forming an interior cavity;

a first knockout formed in the at least one wall and adapted for removal from the at least one wall thereby forming a first opening into the interior cavity when the first knockout is removed;

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a first wall coupler disposed on the at least one wall; and

a first knockout coupler disposed on the first knockout and adapted to connect the first knockout to the first wall coupler so that the first knockout at least partially covers the first opening.

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21. The housing of claim 20 wherein the first wall coupler is comprised of a pair of wall ribs disposed adjacent to the first opening that is formed when the first knockout is removed from the at least one wall and wherein the first knockout coupler is comprised of a knockout rib adapted to mate with the pair of wall ribs.

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22. The housing of claim 21 wherein each one of the pair of wall ribs has a vertical orientation and is disposed above the first opening.

23. The housing of claim 20 wherein the first wall coupler is comprised of a wall rib  
30 disposed adjacent to the first opening that is formed when the first knockout is removed from

the at least one wall and wherein the first knockout coupler is comprised of a pair of knockout ribs adapted to mate with the wall rib.

24. The housing of claim 20 further comprising:

5 a second knockout formed in the at least one wall and adapted for removal from the at least one wall thereby forming a second opening into the interior cavity when the second knockout is removed;

10 a third knockout formed in the at least one wall and adapted for removal from the at least one wall thereby forming a third opening into the interior cavity when the third knockout is removed;

a second wall coupler and a third wall coupler wherein each of said second and third wall couplers is disposed on the at least one wall;

15 a second knockout coupler disposed on the second knockout and adapted to connect the second knockout to the second wall coupler so that the second knockout at least partially covers the second opening; and

a third knockout coupler disposed on the third knockout and adapted to connect the third knockout to the third wall coupler so that the third knockout at least partially covers the third opening.

20 25. The housing of claim 24 wherein the first, second and third wall couplers are each comprised of a pair of wall ribs disposed adjacent to the first, second and third opening, respectively, that is formed when the first, second and third knockout, respectively, is removed from the at least one wall, and wherein the first, second and third knockout couplers are each comprised of a knockout rib adapted to mate with the pair of wall ribs adjacent to  
25 the first, second and third opening, respectively.

26. The housing of claim 24 wherein the first, second and third wall couplers are each comprised of a wall rib disposed adjacent to the first, second and third opening, respectively, that is formed when the first, second and third knockout, respectively, is  
30 removed from the at least one wall, and wherein the first, second and third knockout couplers

are each comprised of a pair of knockout ribs adapted to mate with the wall rib adjacent to the first, second and third opening, respectively.

27. A housing for installation in the ground comprising:

5 at least one wall forming an interior cavity and having an inner surface and an outer surface wherein at least a portion of the outer surface defines an imaginary plane that slants inward toward the direction of interior cavity;

a knockout formed in the at least one wall and adapted for removal from the at least one wall thereby forming an opening into the interior cavity when the  
10 knockout is removed;

a plurality of vertically oriented wall ribs disposed on the portion of the outer surface of the at least one wall; and

at least one knockout rib disposed on the knockout and adapted to connect the knockout to the plurality of wall ribs so that the knockout at least partially  
15 covers the opening.

28. A housing for installation in the ground comprising:

at least one wall forming an interior cavity and forming an upper opening into the interior cavity and a lower opening into the interior cavity, said upper opening  
20 having an upper opening perimeter and said lower opening having a lower opening perimeter;

wherein the at least one wall is slanted so that the upper opening perimeter is smaller than the lower opening perimeter;

a knockout formed in the at least one wall and adapted for removal from the at least one wall thereby forming a knockout opening into the interior cavity when the  
25 knockout is removed;

a plurality of vertically oriented wall ribs disposed on the outer surface of the at least one wall; and



at least one knockout rib disposed on the knockout and adapted to connect the knockout to the plurality of wall ribs so that the knockout at least partially covers the knockout opening.

5           29. A housing for installation in the ground comprising:  
at least one wall forming an interior cavity;  
a knockout formed in the at least one wall and adapted for removal from the at least  
one wall thereby forming an opening into the interior cavity when the  
knockout is removed; and  
10       means for connecting the knockout to the at least one wall after the knockout is  
removed from the at least one wall so that the knockout at least partially  
covers the opening.

15           30. A housing for installation in the ground and for use with a lid and a lever, the  
housing comprising:  
at least one wall forming an interior cavity and forming an opening into the interior  
cavity;  
the at least one wall having an outer surface, an inner surface and a housing edge  
surface connecting the inner and outer surfaces, said housing edge surface  
20       surrounding the opening and adapted to support the lid so that the lid  
substantially covers the opening; and  
a fulcrum disposed adjacent to the edge surface on the at least one wall and adapted to  
support the lever for use in lifting the lid off of the housing edge surface when  
the lid is supported by the housing edge surface.

25           31. The housing of claim 30 wherein the lid has a first lid portion and a second lid  
portion, wherein the fulcrum is a ledge, and wherein the housing edge surface is further  
adapted to support the lid so that the first lid portion overhangs the ledge, and wherein the  
ledge is adapted to permit the insertion of the lever between the first lid portion and the ledge  
30       when the lid is supported by the housing edge surface.

32. The housing of claim 31 wherein the lever is a shovel having a handle and a blade with a generally curve-shaped cross-section, and wherein the ledge is curve-shaped and adapted to register with the blade.

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33. A housing for installation in the ground and for use with a lid and a lever, the housing comprising:

at least one wall forming an interior cavity and forming an opening into the interior cavity;

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the at least one wall having an outer surface, an inner surface and a housing edge surface connecting the inner and outer surfaces, said housing edge surface surrounding the opening and being adapted to support the lid so that the lid substantially covers the opening;

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wherein the housing edge surface has a recessed portion that defines a gap between the lid and the recessed portion when the lid is supported by the edge surface, said gap being adapted to permit the insertion of the lever between the lid and the recessed portion of the edge surface when the lid is supported by the edge surface.

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34. A housing for installation in the ground and for use with a lid and a lever, the housing comprising:

at least one wall forming an interior cavity and forming an opening into the interior cavity;

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the at least one wall having an outer surface, an inner surface and a housing edge surface connecting the inner and outer surfaces, said housing edge surface surrounding the opening and being adapted to support the lid so that the lid substantially covers the opening; and

means for lifting the lid off of the housing edge surface with the lever when the lid is supported by the housing edge surface.

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35. A lid for use with a lid coupler and for use with a housing for installation in the ground, said housing having a housing coupler adapted to engage the lid coupler and having at least one wall forming an interior cavity adapted for enclosing an underground irrigation valve, said at least one wall further forming a first opening into the interior cavity and having  
5 a housing edge surface surrounding the first opening, the lid comprising:

a generally planar-shaped member having an exterior side and an interior side, said interior side being adapted to abut the housing edge surface so that the housing edge surface supports the member and so that the member substantially covers the first opening; and

10 a knockout formed in the generally planar-shaped member and adapted to be removed from the member thereby providing a lid opening;

wherein the lid opening is adapted to permit one of the lid coupler and the housing coupler to extend through the lid opening and to engage with the other of the lid coupler and the housing coupler thereby securing the generally planar-shaped member to the housing.  
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36. The lid of claim 35 wherein the lid opening has one of a generally oval shape and a generally circular shape.

20 37. The lid of claim 35 wherein the generally planar-shaped member has a first member portion constructed of a material having a first thickness and a second member portion constructed of a material having a second thickness that is less than the first thickness, wherein the knockout is substantially surrounded by the first member portion, and wherein the second member portion is adapted to connect the knockout to the first member  
25 portion.

38. The lid of claim 35 wherein the generally planar-shaped member has a first member portion constructed of a material having a first thickness, wherein the knockout is substantially surrounded by the first member portion, and wherein the knockout is  
30 constructed of a material having a second thickness that is less than the first thickness.

39. The lid of claim 38 wherein the generally planar-shaped member has a second member portion adapted to connect the knockout to the first member portion, said second member portion being constructed of a material having a third thickness that is less than the second thickness.

40. The lid of claim 35 wherein the knockout is a plug.

41. The lid of claim 40 wherein the plug has one of a generally oval shape and a generally circular shape.

42. The lid of claim 35 wherein the lid coupler is one of a bolt and a nut and the housing coupler is the other of the bolt and the nut.

43. The lid of claim 35 wherein the lid coupler is a bolt and wherein the housing coupler is comprised of a bracket extending into the interior cavity from the at least one wall, said bracket having an internally-threaded bore adapted to mate with the bolt.

44. A lid for use with a lid coupler and for use with a housing for installation in the ground, said housing having a housing coupler adapted to engage the lid coupler and having at least one wall forming an interior cavity adapted for enclosing an underground irrigation valve, said at least one wall further forming a first opening into the interior cavity and having a housing edge surface surrounding the first opening, the lid comprising:

a generally planar-shaped member having an exterior side and an interior side, said

interior side being adapted to abut the housing edge surface so that the housing edge surface supports the planar-shaped member and so that the planar-shaped member substantially covers the first opening;

said planar-shaped member forming a lid opening adapted to permit one of the lid coupler and the housing coupler to extend through the lid opening and to engage with the other of the lid coupler and the housing coupler when the

planar-shaped member is supported by the housing edge surface thereby  
securing the planar-shaped member to the housing; and  
means for closing the lid opening, said closing means being removably attached to the  
planar-shaped member.